

OUTLINE OF PETROLEUM STOCKPILING IN JAPAN

JAPAN'S EMERGENCY PREPAREDNESS MEASURES



Japan National Oil Corporation

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1. JNOC Organization and general affairs

1. **Stockpiling of petroleum**
2. **Loans for the purchase of petroleum for strengthening stockpiles**
3. **Loans and or funds for the establishment of institutions that enhance petroleum stockpiling**
4. Funds for exploration of offshore oil resources in Japan and overseas
5. Loans for exploration and production of offshore oil resources in Japan and overseas
6. Guarantee debts relating to the cost of exploration and production of oil overseas
7. Lend equipment and machinery necessary for the exploration of oil
8. Technical assistance and guidance relating to exploration and production of oil
9. Geological surveys necessary for the exploration and production of petroleum
10. Obtain legal rights to explore and exploit petroleum sources overseas
11. Research and development of exploration techniques
12. **Gather of information relating to the production of oil and stockpiling methods**

2. History of the JNOC

Oct. 1967

Establishment of the Japan National Oil Development Corporation

May. 1972

Revision of the JNODC law

- Loans for the purchase of crude oil for stockpiling (advancement of private reserve)

Mar. 1975

Reached the target of 60 days private reserve

Jun. 1975

Revision of the JNODC law

- Start up of equity capital • or joint oil storage companies.

Dec. 1975

Petroleum Stockpiling Law Issued

- Mandatory reserve obligations placed on Petrol refineries and related enterprises

Apr. 1976

Enactment of Petroleum Stockpiling Law

- Equity capital for Joint oil stockpiling companies.

Jun. 1978

Revision of the JNODC law

- Start up of the national oil reserve venture
- Change of the official name to Japan National Oil Corporation

Mar. 1981

Reached the target of 90 days private reserve

First completion of National oil storage base•

- Mutsu-ogawara.

2. History of the JNOC

Nov. 1987

Commencement of Emergency Release Exercise

- 100,000kl of crude oil loaded from an onshore facility onto a waiting tanker • •
- and then unloaded back onshore

Feb. 1989

Reached the National reserve target of 30 million kl

Aug. 1996

Completion of whole (10) national oil storage bases

Feb. 1998

Reached the National reserve target of 50 million kl

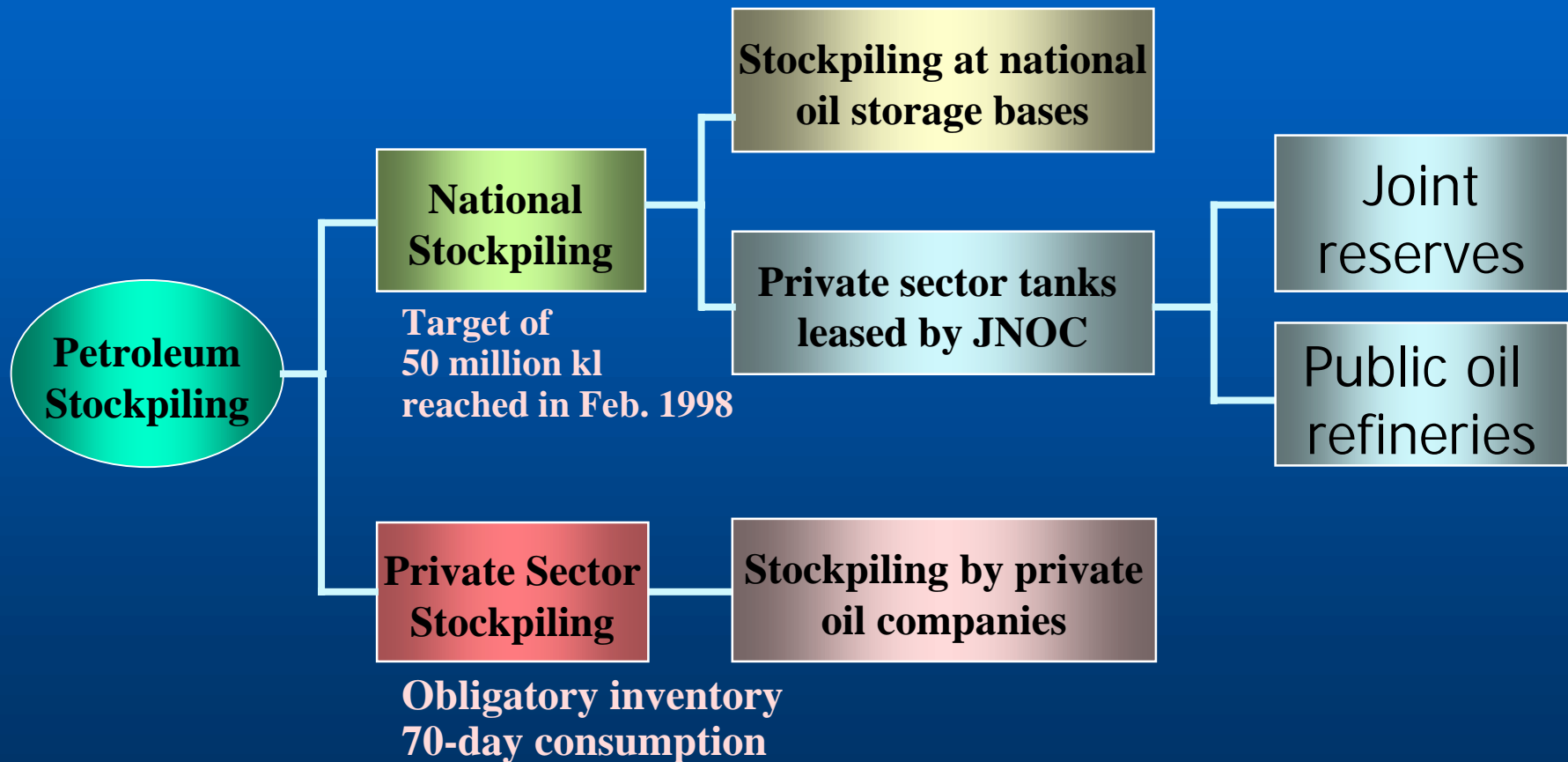
Aug. 1999

Establishment of New Guideline on Emergency Response
by METI's Council

Dec. 1999

Establishment of New Drawdown Manual and CERM system
in response to an pre-emergency by METI and JNOC

3. Outline of petroleum stockpiling system



4. Distribution map of national reserve oil

Based on stored reserve volume, Jul. 31, 2001

Total amount of national stockpiling bases : 34,134,000kl

Total amount of leased private tanks : 15,754,000kl

Okinawa Oil Base(OCC)
34 tanks, 3,563,000kl

Okinawa terminal(OTC)
8 tanks, 746,000kl

South-west oil terminal
3 tanks, 298,000kl

Idemitsu Tokuyama
3 tanks, 194,000kl

Seibu Yamaguchi
10 tanks, 1,218,000kl

Shirashima
8 tankers, 4,752,000kl

Kamigoto, 5 tankers
3,408,000kl

Kushikino, 3 tanks
1,684,000kl

Nisseki Kiire
15 tanks, 2,125,000kl

Shibushi, 40 tanks
4,276,000kl

Nippon Mitsubishi
Mizushima
1 tank, 101,000kl

Akita, 15 tanks,
3,730,000kl

Niigata joint reserve
10 tanks, 861,000kl

Showa Shell Niigata
3 tanks, 294,000kl

Fukui, 27 tanks,
2,855,000kl

Koa Osaka
1 tank, 68,000kl

Wakayama Osaki
1 tank, 83,000kl

Tonen Wakayama
1 tank, 88,000kl

Kikuma, 8 tanks
1,417,000kl

Idemitsu Aichi
7 tanks, 631,000kl

Hokkaido joint reserve
27 tanks, 2,956,000kl

Tomakomai-Tobu
55 tanks, 5,425,000kl

Mutsu-Ogawara
53 tanks, 4,923,000kl

Kuji
3 tanks, 1,665,000kl

Onahama
6 tanks, 498,000kl

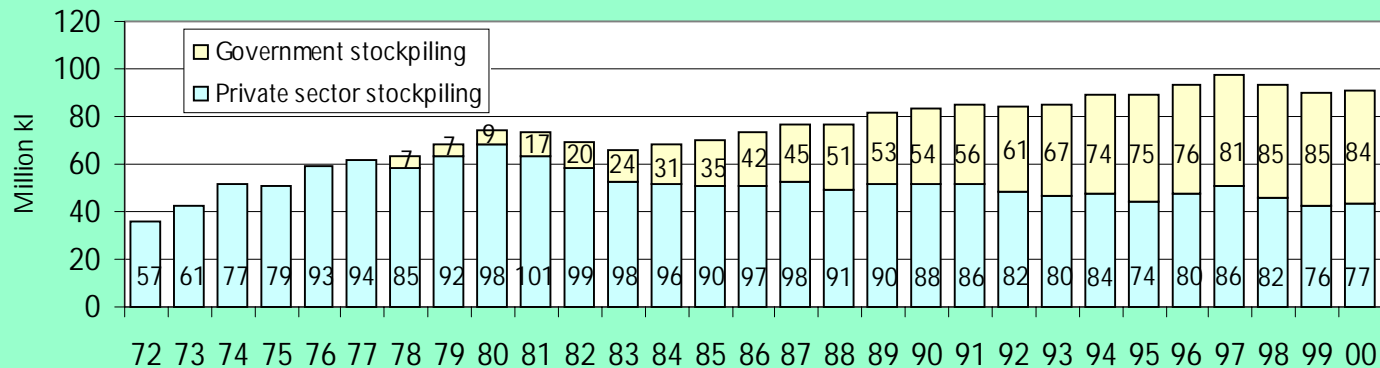
Kashima tank yard
8 tanks, 996,000kl

Idemitsu Chiba
6 tanks, 451,000kl

Kyokuto Chiba
2 tanks, 69,000kl

Fuji Sekiyu Sodegaura
8 tanks, 514,000kl

5. The current state of Japan's national and private reserves



Major events

- First oil crisis
- Inauguration of IEA
- Introduction of oil reserve law
- Enactment of oil reserve law
- Second oil shock
- Gulf war

Government stockpiling

30 millions kl policy(78)

50 millions kl policy(89)

Private sector stockpiling

Set-up to 60 day reserve policy plan(72)

Set-up to 90 day reserve policy plan(75)

Set-up to 70 day reserve policy plan(89)

Notes 1 ; Reserve amounts are based on a conversion from private and national reserve products

Notes 2 ; Reserve days figures are based on the Petroleum Reserve Law

5. The current state of Japan's national and private reserves

	national stockpiling	Private sector stockpiling
Authorized by	The JNOC Law	Petroleum stockpiling Law
Current reserve days (As of end of June.2001)	86days	80 days
Current reserve volume (As of end of June.2001)	47,400,000kl (Product base) 49,895,000kl (crude oil base)	44,067,000kl (product base)
Holding make-up (As of end of June.2001)	100% Crude oil	Product oil 52%, Crude oil 48%
Existing reserve goal	50 million kl (achieved Feb. 1998)	70 days of domestic consumption
Storage place	National stockpile base, private tanks	Refinery, oil tankers, private tanks
Holding format	The "Sealed method"	Held in the distribution process
Maintenance etc.	After the oil has been separated by type, the tank is sealed, and managed as property.	Crude, volatile, kerosene, light and heavy oil are held by type in accordance to standard holding volume criteria. But, with the Minister of METI's approval, the types of oils held may be substituted.

5. The current state of Japan's national and private reserves

	Government stockpiling	Private sector stockpiling
Form of storage	Held in sealed containers (Crude oil)	Held in distribution process (Crude oil and oil product)
Responsible Party	<p>- National reserve companies (About 2/3 of National reserve total volume) Financing is 70% JNOC, and 30% private enterprises and local governments, 8 companies and 10 bases</p> <p>- Private downstream companies (About 1/3 of National reserve total volume) JNOC leases surplus private sector tanks and entrusts them with the national reserve oil.</p>	<p>Refiners, importers etc. However, can be managed by joint reserve companies. (JNOC has a policy allowing for investment in joint reserve companies.)</p>
Financial assistance measures	Government bears the cost	Oil purchase funds, tank building costs etc.
Cost burden	<p>A source of revenue, oil tax becomes part of product cost (Ultimately it can be expected to be passed on to the consumer)</p>	<p>Becomes a part of product cost (Ultimately it can be expected to be passed on to the consumer)</p>

6. Emergency Response Measures

◆ 1987.11 Commencement of Emergency Release Exercise

- Under emergency conditions, to minimize the time it would take to pump the national reserves into the market • JNOC has been in principle conducting Emergency Release Exercises with a tanker at 10 national stockpile bases every other year since 1987.
- During each exercise, 100,000 kl of crude oil is loaded from an onshore facility onto a waiting tanker and then unloaded back onshore.

6. Emergency Response Measures

- As of the end of 2000, 51 exercises have been carried out.

Exercise plan in 2001: 4 bases

<u>base</u>	<u>period</u>
Akita	Aug. 30-Sep. 1
Shirashima	Sep. 3-5
Kamigoto	in early Oct.
Kuji	in late Nov.

Exercise plan in 2002: 6 bases

Tomakomai-Tobu, Mutsu-Ogawara, Kuji, Fukui, Kikuma and Shibushi

6. Emergency Response Measures

1999.8 Establishment of New Guideline on Emergency Response by METI's Petroleum Council

- Whilst the national reserves should still be used as a "last resort" in times of emergency, this oil should also be drawn down quickly and efficiently to the market, in anticipation of an announcement, especially when the IEA-CERM program is invoked in the early stages of pre-emergency.
: More flexible use of the national reserves
- The adequate amount of oil drawdown -- in response to the IEA-CERM program -- should be estimated in consideration of meeting the IEA's requirement of holding 90 days of net imports, even in the stages of pre-emergency (see page 15).

6. Emergency Resopnse Measures

1999.12 Establishment of New Drawdown Manual (called ‘‘CERM Manual’’) and CERM system response to a pre-emergency by METI and JNOC

- Based on the policy of New Guideline on Emergency Response established by METI’s Petroleum Council, METI and JNOC jointly prepared CERM manual for responding to a pre-emergency in accordance with a policy of full and open disclosure to the public.
- The CERM manual regulates the amount and procedure of drawdown to the market in the stages of pre-emergency.

: Maximum 20 million kl

- Downloaded from <http://ajph.org/> on November 10, 2014

7. Pre-emergency Actions regulated by CERM manual

1st Stage

- **Drawdown of National Reserves under the IEA-CERM program (max 20 million kl)**

and/or

- Reduction of Private Reserves Obligation



2nd Stage

- Drawdown of Private Reserves



3rd Stage

- Drawdown of National Reserves: Last Resort (min 30 million kl)

7. Pre-emergency Actions regulated by CERM manual

2. Bases

Considering each base's necessary time of transitioning from operational readiness mode to the drawdown operating mode (within 3-4 weeks of the METI ministerial order to draw down national reserves, see page 21) and the capable amount of the drawdown etc., 5 national bases and 6 private sector sites were selected as the bases from which a maximum of 20 million kl of oil would be drawn down in the early stages of pre-emergency.

5 national bases: Tomakomai-Tobu, Akita, Shirasima, Kamigoto and Shibushi

6 private sector bases: Hokkaido joint reserve, Niigata joint reserve, Seibu Yamaguchi, Nisseki Kioire, Okinawa Oil Base (OCC) and Okinawa terminal (OTC)

7. Pre-emergency Actions regulated by CERM manual

3.The Sales Process - Use of Market Mechanism

- The principal method for distributing the oil would be by competitive sale to the highest bidders.
- The sales bidding could be completed within as little as 13 days of the METI ministerial order to draw down national reserves (see page 21) .

7. Pre-emergency Actions regulated by CERM manual

4. Drawdown Objectives ... • Prevention of Speculation

- Oil companies and oil trading companies regulated by the Petroleum Reserve Law are permitted to apply for authorization to take part in bidding. • •
- 13 companies are currently authorized by METI and JNOC as bidders.

7. Pre-emergency Actions regulated by CERM manual

- The above authorized companies can access the following detailed information at JNOC's web-site:
 - Oil inventories at 11 bases (amount, characteristics),
 - Port and terminal capabilities,
 - Terminal throughput capabilities

7. Pre-emergency Actions regulated by CERM manual

5. Response Time Schedule

- Day 1 METI ministerial decision to draw down national reserves
- Day 1-13 Issuance of a ‘‘Notice of Sale’’
 Receipt of Bids
 Selection of Bidders
- Day14-20 Commence awarding contracts
- Day21-28 Achieve drawdown readiness at base
- Day21- Delivery of oil by tanker

Sayonara

